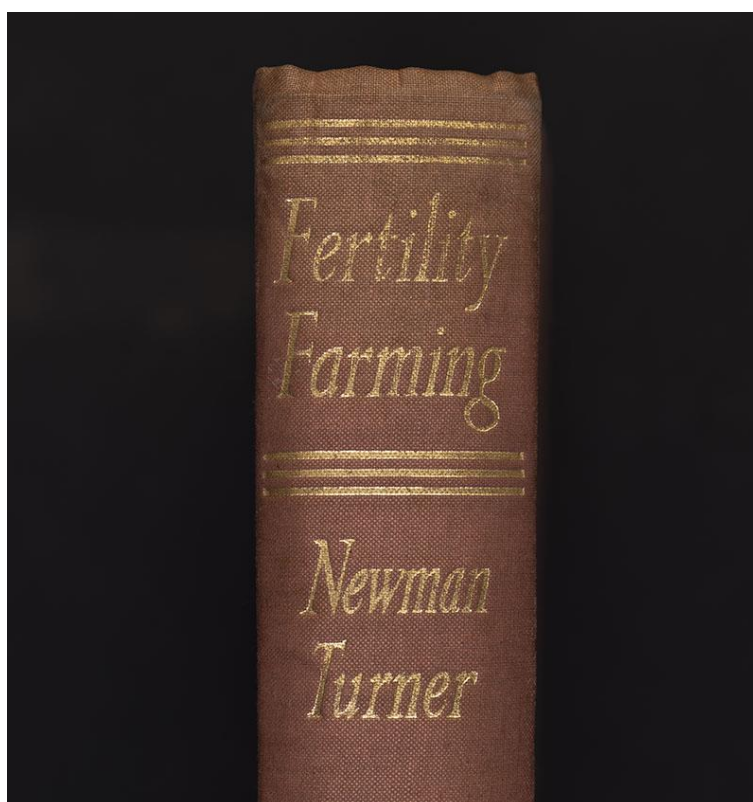


48. Fertile Soils

*In this response, Collections Researcher Tim Jerrome explores the book *Fertility Farming*. He links the work of the author of this landmark publication, Frank Newman Turner, to that of organic farming pioneer, Albert Howard. By extension he explores global connections and inspirations for Howard's work.*

Frank Newman Turner, *Fertility Farming* (London: Faber and Faber, 1951)

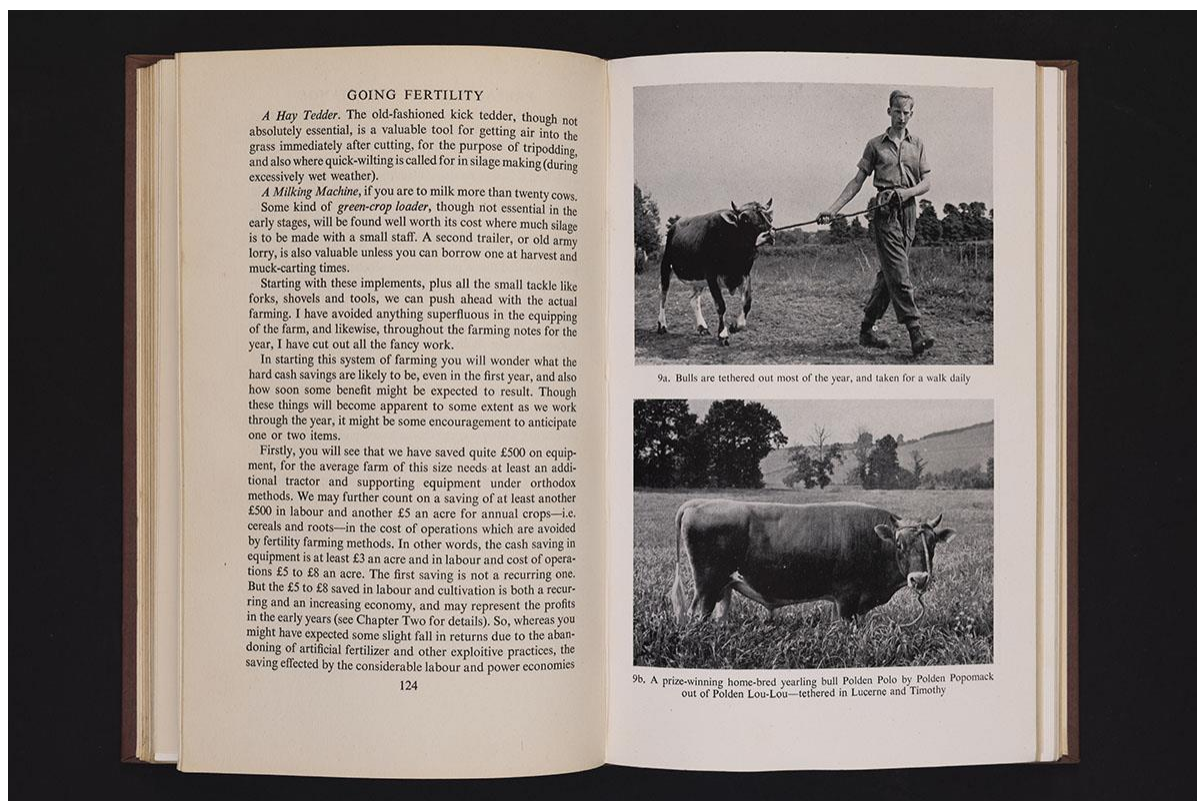


Spine and title of *Fertility Farming*, as written by Frank Newman Turner (MERL Library 3525 TUR).

Organic farming—the practice of growing crops and keeping livestock without the use of artificial fertilisers or pesticides—is a popular phenomenon in the UK. A large, dedicated customer base purchases only food grown by natural methods. As a result, the UK is within the top ten worldwide for revenue generated by organic agriculture. But how was organic farming introduced to the UK? Where did the inspiration come from initially?

Frank Newman Turner's book, *Fertility Farming*, was published in 1951, a few weeks after The MERL was first established. It became an instrumental text on the implementation of organic methods in a UK context. Turner was not an idealist who objected to pesticides on moral grounds; he viewed organic farming as a practical solution to a practical problem. In the early 1940s, he despaired at the disease ravaging his farm at Goosegreens, which orthodox methods failed to address. His hay was brittle, his soil barren of life, and his cow herd stunted by a 75% abortion rate.

In short order, Turner could no longer afford artificial manures for his crops, nor imported feed for his cows. Compost provided an answer to the former problem. By increasing his arable acreage, Turner was able to improve his access to straw, which was combined with cow manure to fertilise his fields and improve the health of the soil. This fertile soil, in turn, produced a solution to the latter problem, as it grew green fodder and herbal 'leys' to feed the cows. A natural diet improved the herd's health dramatically, and by 1950 his animals were living longer, fertile into old age, and free of common bovine illnesses such as mastitis and TB. Turner's philosophy was for his animals and crops to complement each other, instead of being two separate enterprises.



Double-page spread from *Fertility Farming*, with content on cattle, hay, and milking (MERL Library 3525 TUR).

A range of other pragmatic advice is provided by Turner, ensuring the natural approach is taken all year round. He warns against over-ploughing and man-made soil drainage, claiming that the disc harrow is the farmer's most important cultivating tool and that tree growth is essential for maintaining the correct water content of soil. As he puts it, 'Except in flood and treeless areas, a soil containing adequate organic matter in the right place will attend to its own drainage problems.' Furthermore, Turner contradicts orthodox practice on weeds by encouraging them, claiming that nature never intended for the soil to be bare. Aside from their contribution to soil fertility, they also protect the soil from harsh sunlight, and if allowed to grow can form 'green manure', a fertiliser consisting of plants. One specific weed highlighted is chickweed, which grows only in winter. Newman harvested it for its medicinal value, particularly for cows, and incorporated it within his cattle feed. Therefore, he saved money on both destroying the weeds and feeding the cattle.

Financial benefits are heavily focused on by Turner, as he cannily understood that purely ethical appeals to maintaining nature were not going to gain much traction in such a commercially competitive market. Most notably, the reduction in ploughing he advocates for saves money on both tractor fuel and labour. He found that the work of making and spreading manure was half the cost of buying and spreading artificial fertilisers, and the enhanced health of his herd significantly reduced veterinary bills. Perhaps the greatest strength of Turner's work is the longevity of his study, as he transformed his farm over a period of ten years. He proudly declares that his farm was worth £25,000 in 1951, £17,500 more than he purchased it for in 1941.

COSTS AND RETURNS
SHEEP'S SLEIGHT on BALL HILL, 6 acres. CROP, re-seeded to ley.

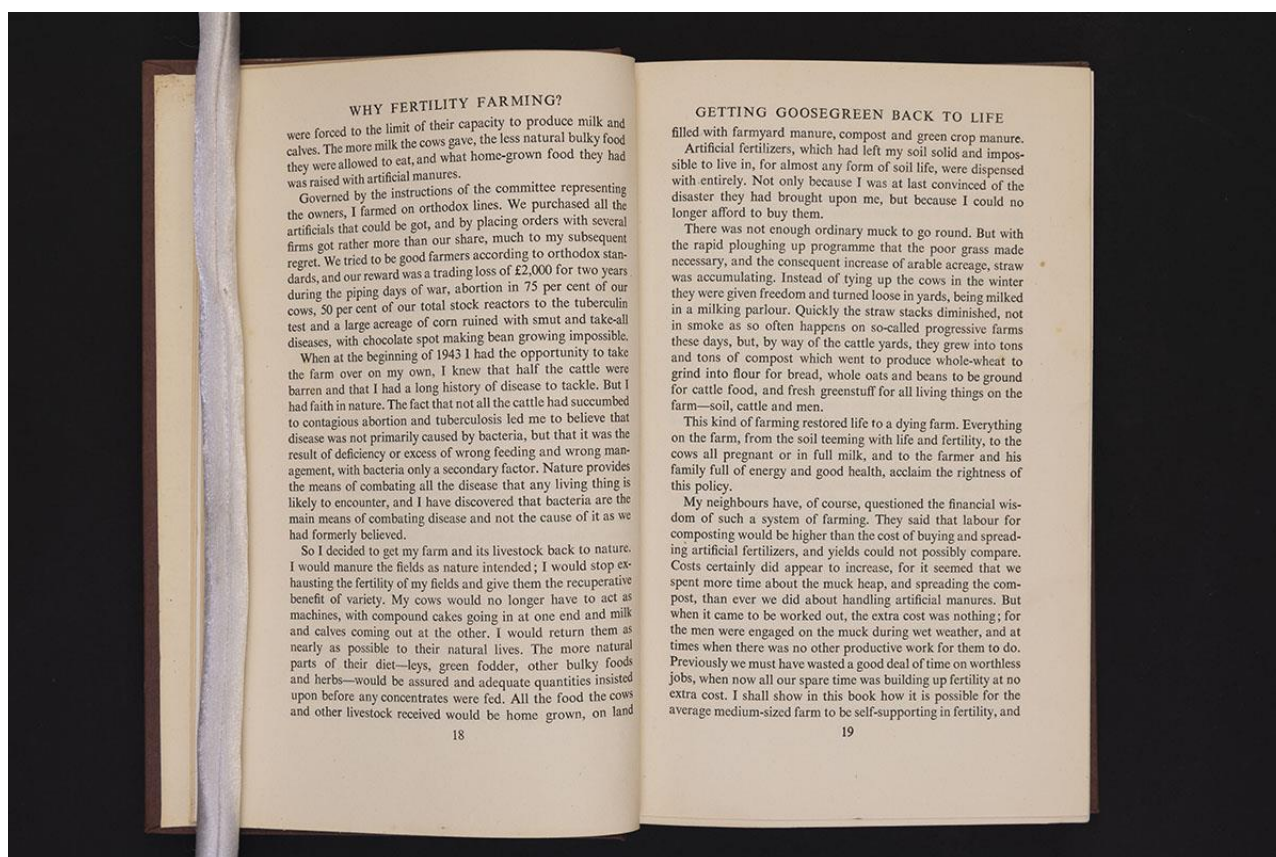
Date	Operation	Labour (Name and Hourly Rates)	Power (at Per Hour)	Time (Hours)	Materials	Cost	Income
						£ s. d.	£ s. d.
1943 May	Clearing scrub	A.D. 1/6 J.B. 1/3	Hand do.	24 20			
	Pre-discing	G.E. 1/3 J.B. 1/3	do. Tractor at 2/6 an hour	20 35		4 6 0	
May 30	Ploughing	W.A.C. Contract	Crawler			6 11 3	
July	Discing and rolling	W.A.C. Contract	Crawler			7 10 0	
	Water trough and tapping main	R.D.C.				5 0 0	
1944 March	Second ploughing	W.A.C.	do.			4 0 0	
April	Discing and rolling	do.	do.			7 10 0	
	Manuring	do.	do.		6 tons grd. limestone Compost	5 0 0 4 12 6 7 19 2	
May 6	Labour, etc. Broadcasting seed	do. A.D. 1/6	do. Hand fiddle	6	30 lb. At £3 p.a.	4 0 0 0 9 0 18 0 0	
May 1944 to May 1945	Grazing 304 heifer-weeks at 5/- (Details from diary)					Total cost: £74 17 11	1st year Income: £76 0 0

UNDERHILL CLOSE, 12 acres.
CROP, 3 years ley sown under winter wheat (Desprez 80)

Date	Operation	Labour (Name and Hourly Rate)	Power (at Per Hour)	Time (Hours)	Materials	Cost	Income from Milk—1944
						£ s. d.	£ s. d.
1942 November	Manuring	A.D. 1/6	Tractor 2/6	10		2 0 0	April 119 17 4
1943 April	Broadcasting seed	A.D. 1/6	Hand	8	Manure	-24 0 0	May 89 19 5
					36 lb. seed p.a. at 85/-	0 12 0	June 88 16 8
April 1944	Dragging	Man 1/6	Tractor 2/6	6		51 0 0	July 89 3 4
March	Fencing	2 men at 2/6	Hand	8	Wire £3	1 4 0	Aug. 110 2 6
						3 0 0	Sept. 96 13 8
							Oct. 120 8 8
					Total cost of making ley	£82 16 0	
					Total Income		715 1 7
					Less feeding stuffs		91 13 0
					Nett Income		£623 8 7

Some of Turner's finances laid bare in tables supporting the text in *Fertility Farming* (MERL Library 3525 TUR).

It is unsurprising that Turner's clear, concise, and practically-minded advice caught the attention of many UK farmers, helping to spread organic practice around the country. But what inspired his methods? It seems Turner's greatest source of learning was Sir Albert Howard, a botanist he was personally acquainted with. Turner notes that he received a good deal of advice from Howard on the running of his farm, and laments the fact that Howard never lived to see the publication of *Fertility Farming*. Therefore, we must examine Howard's life and work to discover the roots of organic farming in the UK.

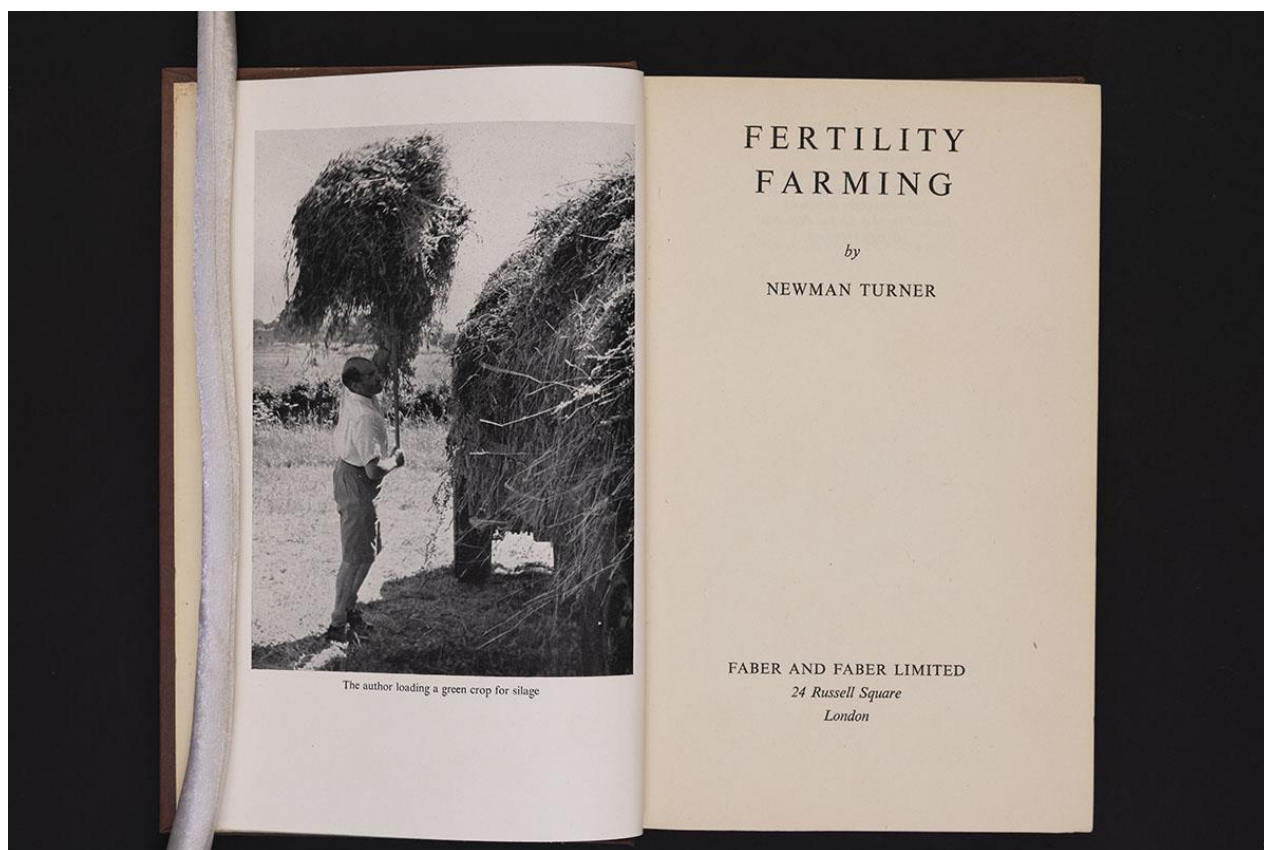


Pages from *Fertility Farming* exploring the challenges of keeping soil fertile naturally (MERL Library 3525 TUR).

Sir Albert Howard is widely regarded as the founder of modern organic farming. His formative work and research was undertaken during 26 years working in India, from 1905–1931. During this period, he worked alongside two women—his first wife Gabrielle Howard (née Matthaëi) and, after her death, his second wife, Gabrielle's sister, Louise—to develop the famous Indore composting method. Named after the region of India in which Howard worked, Indore compost transformed the way in which the Western world understood soil fertility. Through this method, Howard was able to communicate that recycling animal and plant waste into fertiliser greatly improved long term soil health and yields. It is thoroughly detailed in his pioneering book, *An Agricultural Testament*. By the time of publication in 1940, Indore composting was already widely used around the world and was continuing to flourish in popularity.

Howard's key philosophy was that destroying pathogens was wrong, and instead they should be learned from and utilised. Living organisms in soil, which pesticides might destroy, were the first link in the chain that formed a 'living bridge' for plants, animals and people. He called this theory the 'Law of Return', focusing on the cycle of returning minerals to the earth once they had passed through animals and humans. He extensively toured northern India, from Bombay (now Mumbai) to Bengal, examining farming methods, gaining an ever-widening perspective.

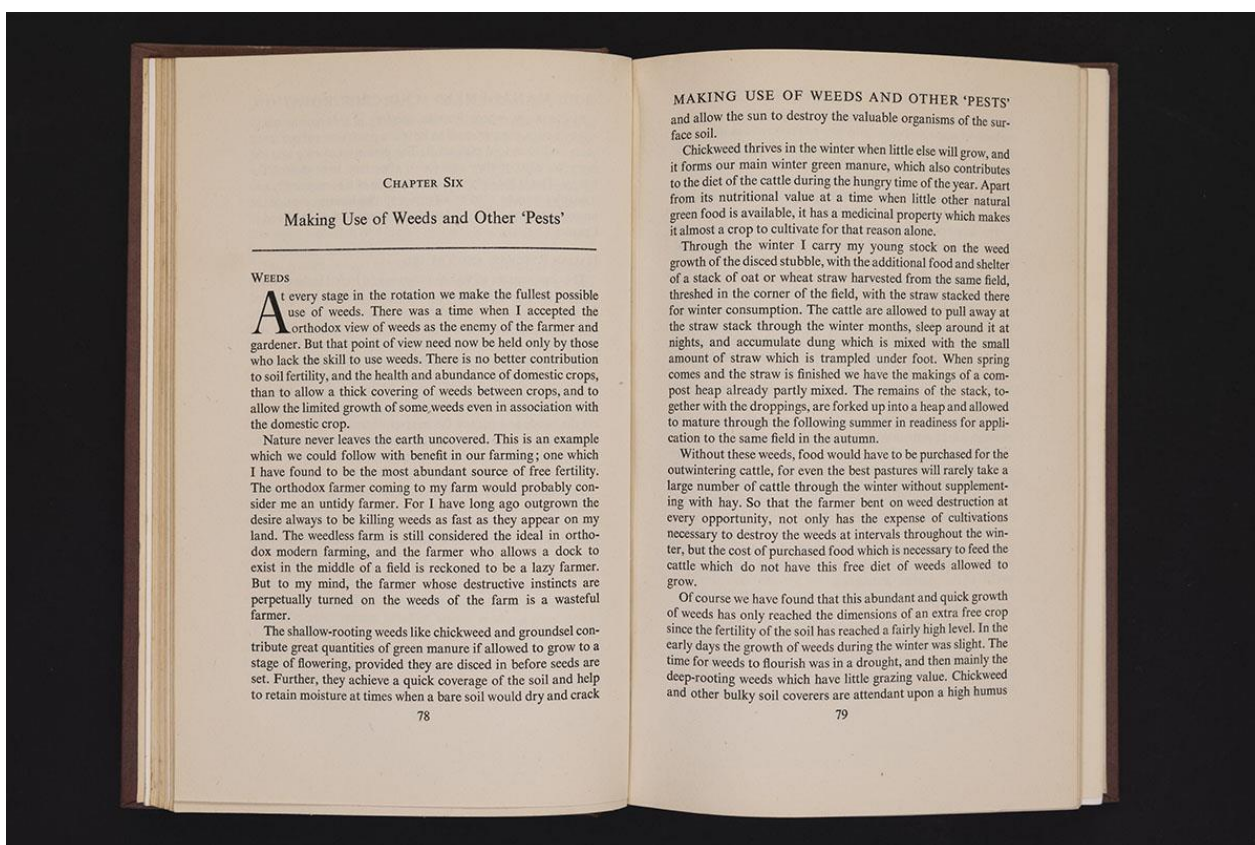
Later on in his life, Howard's views came to be viewed as extreme, likely due to his aggressive railing against the agricultural establishment. He was outspoken in his dislike of artificial fertiliser companies, believing they controlled the conversation. This is probably why he encouraged his peers to prove his theories with long-term studies and evidence. As well as Turner, this included Eve Balfour, whose thirty year Haughley experiment featured results such as a higher milk yield from a herd of organically-fed cows.



Frank Newman Turner—shown here in an image in his book *Fertility Farming*—was friends with and was inspired by Sir Albert Howard (MERL Library 3525 TUR).

We have strong evidence to prove that Howard's theories were inspired by the farming methods he witnessed amongst the Indian population. When he came to India, he was a believer in orthodox agriculture, and even after many years he had not changed his ways; in he 1919 approved a mission to fumigate imported fruits and vegetables in order to kill unwanted pests. As such, to reach the end of our line of investigation, we must question where natural Indian farming methods originated.

Our answer lies in the Vedic texts, which are ancient Hindu scriptures. In particular, the fourth Vedic text, the Atharvaveda, provides guidance on everyday living. It includes directions for agriculture, mentioning soil fertility and productivity. As a result, it became commonplace for ancient Indians to spread organic waste products onto their fields as part of the cultivation process. This knowledge has passed down generationally, including throughout the period during which it inspired Howard's work, and by extension, Turner's. We can see the truth behind this origin through multiple direct similarities between the Vedic texts and Turner's *Fertility Farming*. Enabling plant life is an important part of Vedic agriculture, which echoes Turner's distaste for killing weeds. Furthermore, Turner suggests that an essential quality of the earth for a high yield is the widespread existence of earthworms. Within Vedic texts, a significant earthworm population is encouraged through a process known as "Angara". Despite these similarities, Turner does not mention Indian or Vedic influence anywhere in his book. Perhaps Howard was not entirely truthful about the source of his inspiration.



Although these links are not explored in his text, Frank Newman Turner's attitude to weeds echoes that of Howard and, by extension, that of the Vedic texts that inspired organic thinking (MERL Library 3525 TUR).

One pertinent question remains. Why was Howard's work on organic methods so widely accepted when other, earlier researchers had been generally ignored? For example, F. King's *Farmers of Forty Centuries*, published in 1911 and cited by Howard, failed to gain traction despite making similar recommendations. Additionally, Howard was far from the first to publish a comprehensive compost recipe. E. Shearer wrote a formula for compost in 1907, based on Japanese methods. Hutchinson and Richards established the benefits of using organic matter for compost in Rothamstead in 1921. The *Agricultural Testament* completely ignores the former and criticises the latter.

I suggest that Howard's success was not based on his composting recipe, but rather the manner in which he proposed it. He presents Indian agricultural labourers through a highly romanticised lens, repeatedly calling them "peasants". This superior attitude is intended to compare the Indian worker to the medieval European farm worker. This is apparent because the word peasant is in itself a European concept, deriving from the old French "paisent" meaning "country dweller". Therefore, Howard is implying that the Indian people are in the same situation Europe was several hundred years beforehand, farming a land unspoilt by machinery or capitalist greed.

We can infer from this that Howard is neglecting the Vedic agricultural principles inspiring Indian agriculture at the time. Instead, he is suggesting that the Indian people are only carrying out organic farming because they are not as technologically or socially advanced as their Western counterparts. In some instances it even seems as if he is accusing Indian farmers of fertilising the soil by accident. For example, he points out that around most rural villages there is a ring of highly fertile land, which is caused by the populace dumping their manure in the nearby countryside, not spreading it deliberately for fertility purposes. He asserts that:

"In India there are 500,000 villages, each of which is surrounded by a zone of very fertile land which is constantly being over-manured by the habits of the people."

In contrast, King's work consistently praises the intelligent and sustainable farming methods of Asian countries, particularly China.

Whilst Howard is not overtly critical of the Indian people, his work manages to convey the benefits of organic farming whilst still maintaining an air of colonial superiority. His *Agricultural Testament* is a call to action; that Western supremacy is threatened by soil infertility, and agriculture must return to the simpler way of the Indian "peasant" if it is to survive. This is potentially why his work had wider appeal than his contemporaries, at a time when the British Empire was starting to crumble under the weight of independence movements. By acknowledging the true Vedic origins of the twentieth century organic movement in the UK, we can begin to decolonise our outlook on this important arm of modern British agriculture.

Further Information:

For information about the book see – [MERL Library 3525 TUR](#)

Further Sources (online):

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Eve Balfour, *The Living Soil* (London: Faber and Faber, 1949)

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